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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/600,899

06/19/2003

Scott R. Samuelson

Samuelson-001

6805

31070

7590

12/05/2005

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EXAMINER

FITZGERALD, JOHN P

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/600,899	<b>Applicant(s)</b> SAMUELSON, SCOTT R.	
	<b>Examiner</b> John P. Fitzgerald	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8 and 11-31 is/are rejected.
- 7) ☒ Claim(s) 7,9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Previous indications of allowable subject matter are hereby withdrawn in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

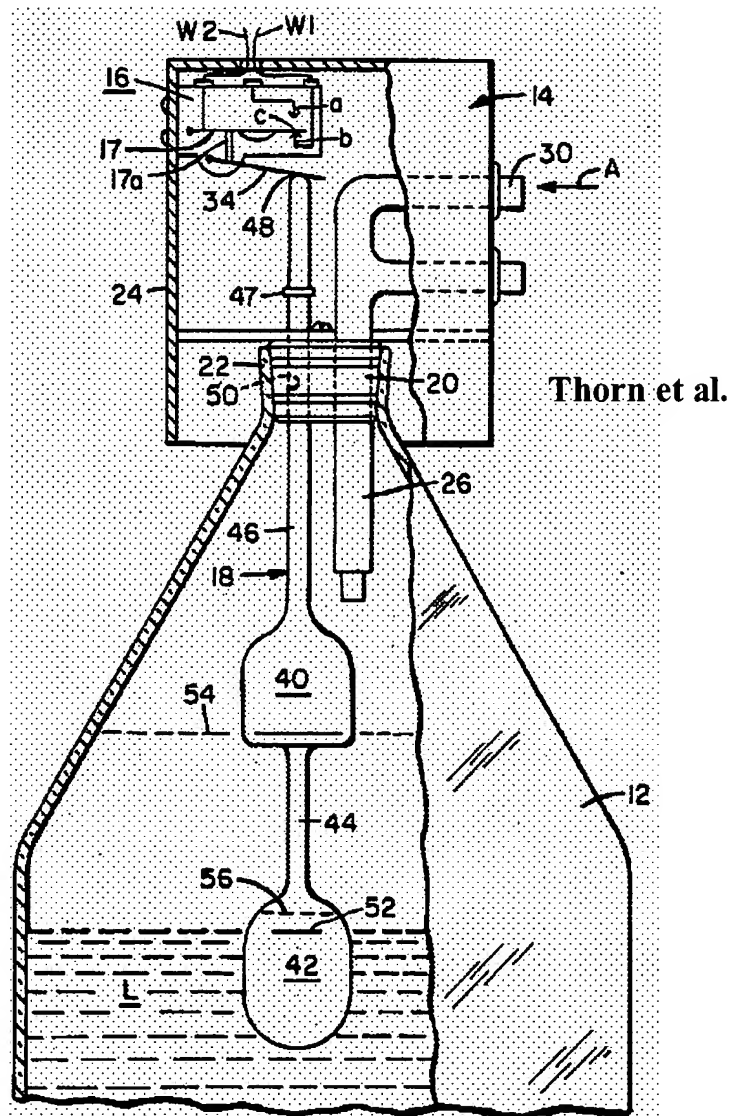
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-6, 8, 11-21 and 25-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,081,638 to Thorn et al. and US 2,661,410 to Luczko. Thorn et al. disclose an apparatus for detecting a lowering of a top surface of a liquid (see Figure below) a housing (14) including a housing hole; an insertion member (20) attached to the housing; a dowel (18) defining a longitudinal length having a first end and second end and inserted into the substantially round (as recited in claim 3) housing hole; first and second (i.e. plurality) of air tight floats attached (40, 42) (as recited in claim 25) collinearly (through their central axes) to the dowel; a detector switch (16) having an actuator arm (34); the switch attached to the housing and the arm located proximate the first end of the dowel; wherein the insertion member has a substantially round (as recited in claim 3) insertion member hole that is partially aligned with the housing hole and the two holes having substantially the same diameter/size (as recited in 3) thus permitting movement of the dowel (as recited in claim 2); wherein the dowel is inserted through both holes; and wherein the housing has a lateral surface and the insertion member has a first side face that are substantially parallel (as recited in claim 4); wherein the first side face of the

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insertion member is located to define a gap (see Figure below) between the first side face of the insertion member and the lateral surface of the housing; the housing also having a ledge, and wherein the lateral surface and the first side face of the insertion member are substantially perpendicular to the ledge of the housing and to the longitudinal axis of the dowel (as recited in claim 11); the detector switch having electrical connectors (W1 W2) connected to appropriate terminals of the switch and to a power source/controller; a retaining ring (47) to keep the dowel dropping below a certain point (note: a ring is an equivalent means to a pin, that is, it performs the identical function, as recited in claim 12). Thorn et al. do not expressly disclose an audio transducer (or some other type of indicator such as a light or transmitter generating some type signal to a user/operator, as recited in the independent claims and claims 17-20, 30, 31, or the particulars of a battery/socket, on-off switch and electrical connections being in series or parallel, recited in claims 13-16 and 21, or the particular dimensions of the dowel, insertion member, recited in claim 5 and 6). Luczko discloses an apparatus for detecting a lowering height of a top surface of a liquid having linked members/dowels, a float (56); serially connected a battery (see Fig. 2), an audio indicator or other signal (i.e. light or transmitter) means. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any type of power source (i.e. battery), any type of indicator, a light, audio/buzzer/transmitter, connected in any type of circuit, parallel or series, including an on/off switch, as well as their particular locations about the main components of the apparatus, for the Prior Art is replete with such particulars, examples and minor variations based on desired needs/wants or design requirements. In specific regards to the recited dimensions, it would have been obvious to one having ordinary skill in the art at the time the invention was made to size the various elements of

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the apparatus disclosed by Thorn et al. and Luczko, based upon the container to be employed, the opening within the container, the distance from the opening of the container to the liquid's top surface/level (i.e. longer distance would require a longer dowel), the weight of the apparatus itself (i.e. requiring size limitations/requirements on the insertion member, as recited in claims 5 and 6). Supporting this point, Thorn et al. state: "It is apparent that a much greater difference in levels can be obtained by merely changing the dimensions and weight of the float assembly" (col. 5, lines 15-22). Lastly, Thorn et al. and Luczko disclose the claimed invention except for the housing made of a transparent material (claim 27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any type of material, including a transparent one, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

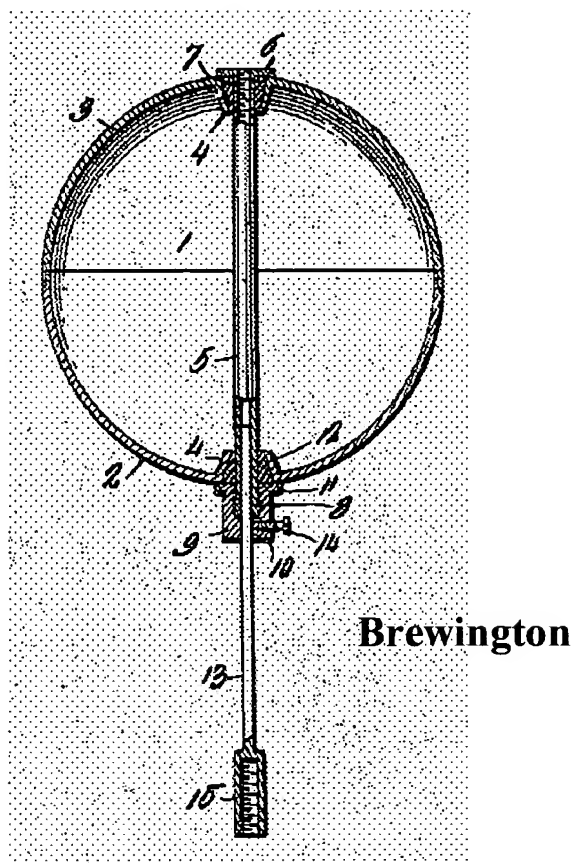


4. Claim 22 is rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,081,638 to Thorn et al. and US 2,661,410 to Luczko as applied to claim 11 above, and further in view of US 1,457,055 to Brewington. Thorn et al. and Luczko disclose the claimed invention having all the elements recited previously. Thorn et al. further disclose that the second float (42) having an oblong spheroid shape (see Figure above), however, the first and second floats, as well as the dowel, are an integrated structure, not having the dowel inserted through the first and second floats along their spheroidal central axes, nor the first float being an oblong spheroid, as recited

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in claim 22. Thorn et al. do disclose that: "It is apparent that a much greater difference in levels can be obtained by merely changing the dimensions and weight of the float assembly" (col. 5, lines 15-22), thus obvious to one of ordinary skill in the art to employ two oblong spheroids as the first and second floats for altering the floating "level" of the dowel/floats assembly.

Brewington discloses a float assembly (Figure below) wherein the float is made up of two halves (3 and 2) and a dowel/rod (13) passes through a central axis of the float. It would have been obvious to one having ordinary skill in the art at the time the invention was made to pass a rod through a central axis of the floats of the apparatus disclosed by Thorn et al. and Luczko thus providing a float that is water tight, means for connecting the two halves together and a nature which may be easily taken apart for repairs or transportation and which is strong, durable, inexpensive to manufacture and highly efficient in practice (Brewington: page 1, lines 18-28).



5. Claims 23 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,081,638 to Thorn et al., US 2,661,410 to Luczko and US 1,457,055 to Brewington. Thorn et al. disclose an apparatus for detecting a lowering of a top surface of a liquid (see Figure above) a housing (14) including a housing hole; an insertion member (20) attached to the housing; a dowel (18) defining a longitudinal length having a first end and second end and inserted into the housing hole; first and second of air tight floats attached (40, 42) collinearly (through their central axes) to the dowel; the second float having an oblong spheroidal shape; a detector switch (16) having an actuator arm (34); the switch attached to the housing and the arm located proximate the first end of the dowel. Thorn et al. do not expressly disclose an audio transducer (or some other type of indicator such as a light/audio or transmitter generating some type



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signal/alert to a user/operator, or particular recited details of the first and second floats (size, shape, formation (i.e. two pieces, each piece being a cap with a rim and hole for the dowel to pass through it's central axis when formed and location). Luczko discloses an apparatus for detecting a lowering height of a top surface of a liquid having linked members/dowels, a float (56); serially connected a battery (see Fig. 2), an audio indicator or other signal (i.e. light or transmitter) means. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any type of indicator/alert, a light, audio/buzzer/transmitter, connected in any type of circuit, for the Prior Art is replete with such particulars, examples and minor variations based on desired needs/wants or design requirements. In specific regards to the floats and their shapes, as pointed out above, Thorn et al. disclose that the second float (42) having an oblong spheroid shape (see Figure above), however, the first and second floats, as well as the dowel, are an integrated structure, not having the dowel inserted through the first and second floats along their spheroidal central axes. Thorn et al. do disclose that: "It is apparent that a much greater difference in levels can be obtained by merely changing the dimensions and weight of the float assembly" (col. 5, lines 15-22), thus obvious to one of ordinary skill in the art to employ two oblong spheroids as the first and second floats, as well as their overall volumetric size, for altering the floating "level" of the dowel/floats assembly. Regarding the float structure, Brewington discloses a float assembly (Figure above) wherein the float is made up of two halves (3 and 2) and a dowel/rod (13) passes through a central axis of the float. It would have been obvious to one having ordinary skill in the art at the time the invention was made to pass a rod through a central axis of the floats of the apparatus disclosed by Thorn et al. and Luczko thus providing a float that is water tight, means for connecting the two halves together and a nature

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which may be easily taken apart for repairs or transportation and which is strong, durable, inexpensive to manufacture and highly efficient in practice (Brewington: page 1, lines 18-28).

***Allowable Subject Matter***

6. Claims 7, 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is invited to review PTO form 892 for relevant Prior Art to the instant invention cited by the Examiner.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you


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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature, possibly 'JF', in black ink.

JF

11/28/2005

A long, flowing handwritten signature in black ink, likely 'Hezron Williams', positioned above the printed name.

HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800